

## **Lower Granite Dam**

Powerhouse Capacity: 810 MW total

Location: Snake River. River Mile 107.5, near Pomeroy, Wash.

In-Service Date: April 1975

Normal Operating Pool: 733.0-738.0 feet

Spillway: 512 feet long, 8 gates

Navigation Lock: This is a single-lift lock, 86 feet wide

by 674 feet long and a 100-foot vertical lift.

**Authorization:** The project was authorized by the River & Harbor Act of 1945.

**Project:** This project consists of Lower Granite Dam, navigation lock, powerhouse, a fish ladder and appurtenant facilities. The project provides hydroelectric generation, navigation, recreation and incidental irrigation.

**Lower Granite Dam:** The dam, located at the upstream end of



Lake Bryan, is about 3,200 feet long with an effective height of 100 feet. The dam is a concrete gravity type, with an earthfill right abutment embankment. It includes a navigation lock with clear dimensions of 86 by 674 feet; and an eight-bay spillway that is 512 feet long, with eight 50-foot by 60.5-foot radial gates.

**Reservoir:** The lake created by the dam extends upstream on the Snake River about 40 miles to Lewiston, Idaho, more than 460 river miles from the Pacific Ocean.



**Generators:** The powerhouse has six 135,000-kilowatt units. Power generated during fiscal year 2007 was 1.4 billion kilowatt hours.

**Fish Passage:** There is one fish ladder for passing migratory fish with entrances on both shores and a fish channel through the dam that connects to the south shore ladder.

Juvenile Fish Programs: As the first collector dam on the Snake River, Lower Granite is a primary component of the Juvenile Fish Transportation Program. Transport began in the late 1960's as a research program on how to bypass juvenile salmon and steelhead around the Corps' dams and reservoirs of the Snake and Columbia rivers. At Lower Granite, a total of 3,201,658 juvenile fish were collected in 2007, with 2,516,948 of those transported. A Spillway Weir was installed in 2001, resulting in improved in-river passage conditions for juvenile salmonids via the spillway.

**Levees:** The District constructed about 8 miles of levees around Lewiston to help protect lives and property from potentially destructive high water conditions. Since construction, the levees have prevented more than \$25.4 million in potential flood damages.

**Navigation:** Traffic through the navigation lock consisted of grains, petroleum products, fertilizer, wood products, and miscellaneous cargo that amounted to 1,624,900 tons during calendar year 2007.

**Lands:** There are about 13,000 acres of project lands surrounding Lower Granite Lake. These project lands include fee lands that are federally-owned and



managed by the Corps, or are managed by lessees, as well as easement lands to which the Corps has specific rights or easements (i.e., flowage or access). Most of these lands are used for wildlife habitat, wildlife mitigation, public recreation purposes, and water-connected industrial development. Currently, approximately 515 acres are licensed either to State or local park agencies. There are 12 public boat launching facilities. In 2007, total visitation at Lower Granite recreation areas was 1,386,700.

**Progress:** Construction began in July 1965, and was completed in 1984. The main dam is complete, as well as relocations and modifications to the Camas Prairie Railroad Bridge, state highways, and county roads. The installation of the first three power-generating units was complete in 1975. Power came online for additional units 4 through 6 in 1979. Final modifications to the City of Lewiston's water intake were done in August 1987.

**People:** More than 80 Walla Walla District employees work at the Lower Granite Project. They serve as electricians, lock operators, mechanics, welders, riggers, painters, utilitymen, heavy equipment operators, environmental resource specialists, biologists, park rangers, administrative support staff, engineers and maintenance workers. Together, they ensure the safe and continuous operation of the project.



**Budget:** Total expenditures during fiscal year 2007 were about \$8.7 million.

**References:** Annual Report of the Secretary of the Army on Civil Works Activities, Fiscal Year 2007, Department of the Army Corps of Engineers, Extract Report of the Walla Walla District.

## For more information contact:

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